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PATENT, TRADEMARK, COPYRIGHT
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TRUMAN A. HERRON   1935-1976
EDWARD B. EVANS   1936-1971

March 30, 2006

FACSIMILE COVER SHEET

To: Examiner Cong-Lac T. Huynh
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      Claims Appendix, 1 page Evidence
      Appendix, and 1 page Related Proceedings
      Appendix)

From: Scott A. Stinebruner
       Reg. No. 38,323

Re: U.S. Patent Application
       Serial No.   09/751,574
       Filed: December 29, 2000
       Applicant: Cary Lee Bates et al.
       Art Unit: 2178
       Confirmation No.: 8366
       Our Ref: IBM/166

Pages: 38 (including cover sheet)

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Judith L. Volk   _March 30, 2006_
Judith L. Volk   Date

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Cary Lee Bates et al.	Art Unit:	2178
Application No.:	09/751,574	Examiner:	Cong-Lac T. Huynh
Filed	: December 29, 2000		
For	: AUTOMATED SPELL ANALYSIS		

Cincinnati, Ohio 45202   March 30, 2006

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Commissioner for Patents
P.O. Box 1450
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TRANSMITTAL OF APPEAL BRIEF (PATENT APPLICATION-37CFR 191)

1. Transmitted herewith is the APPEAL BRIEF in this application with respect to the Notice of Appeal received by the Office on January 30, 2006.

2. **STATUS OF APPLICANT**

   This application is on behalf of

   __XX__ **other than a small entity**

   ____ small entity status requested

   ____ small entity status previously requested and still proper

3. **FEE FOR FILING APPEAL BRIEF**

   Pursuant to 37 CFR 1.17(f) the fee for filing the Appeal Brief is:

   ____ Small entity $250.00

   __XX__ **Other than a small entity**   **$500.00**

03/31/2006 TL0111 00000044 233000 09751574

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4.   **EXTENSION OF TIME**   **MAR 3 0 2006**

Applicant petitions for an extension of time under 37 C.F.R. 1.136(a) for the total number of

months checked below:

Months		Fee for other than small entity	Fee for small entity
_____	one month	$ 120.00	$ 60.00
_____	two months	. . . . 450.00	. . . . 225.00
_____	three months	. . . . . 1,020.00	. . . . 510.00
_____	four months	. . . . . . 1,590.00	. . . . 795.00
_____	five months	. . . . . 2,160.00	. . . . . 1,080.00

Fee: $ _____

If an additional extension of time is required, please consider this a petition therefor.

5.   **TOTAL FEE DUE**
The total fee due is:
Appeal Brief Fee __$500.00__
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6.   **FEE PAYMENT**

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__XX__   Charge fee to Deposit Account No. 23-3000.

7.   **FEE DEFICIENCY**

__XX__   Charge any additional extension fee required or credit any
overpayment to Deposit Account No. 23-3000.

WOOD, HERRON & EVANS, L.L.P.

By _____
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PATENT

Attorney Docket No. IBM/166
Confirmation No. 8366

UNITED STATES PATENT AND TRADEMARK OFFICE

_____

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

_____

Ex parte Cary Lee Bates, Paul Reuben Day, John Matthew Santosuosso

_____

Appeal No. _____
Application No. 09/751,574

_____

APPEAL BRIEF

_____

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Confirmation No. 8366

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Cary Lee Bates et al.	Art Unit: 2178
Application No.:	09/751,574	Examiner: Comg-Lac T. Huynh
Filed:	December 29, 2000	Atty. Docket No.: IBM/166
For:	AUTOMATED SPELL ANALYSIS	

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

I. REAL PARTY IN INTEREST

This application is assigned to International Business Machines Corporation, of Armonk, New York.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF CLAIMS

Claims 1-39 and 42-43 are pending in the Application, stand rejected, and are now on appeal. Claims 40 and 41 have been canceled.

IV. STATUS OF AMENDMENTS

An Amendment After Final was filed on January 30, 2006 cancelling allowed claims 40 and 41. The amendments were entered by the Examiner for the purposes of appeal, as confirmed in the Advisory Action dated February 15, 2006.

Page 1 of 26
Application No. 09/751,574
Appeal Brief dated March 30, 2006
Notice of Appeal dated January 30, 2006
IBM Docket ROC920000191US1
WH&E IBM/166

V. SUMMARY OF CLAIMED SUBJECT MATTER

Applicants' invention is generally directed to the concept of determining acceptable usages of linguistic terms such as words, phrases, and acronyms through the use of automated analysis techniques. In particular, automated analysis is used to determine an acceptable usage of a linguistic term by scanning a plurality of documents for variants (e.g., based on differing spellings, punctuation, capitalization, meaning or definition, etc.) of the term, and tracking relative occurrences of a plurality of such variants found in the plurality of documents during scanning. By tracking occurrences of linguistic term variants, users may be able to use such statistical information to select which of the available variants represents an acceptable usage, or even a most acceptable usage, of a term. (Application, page 4, lines 2-12).

Due to globalization, easier travel, and in particular, the increase in electronic communications, the world is in the midst of a renaissance of culture and language, with the public's lexicon constantly in a state of flux. As new linguistic terms spring up and old terms cease to be used, it becomes difficult, particularly for writers and authors, and even for those corresponding informally with others by electronic messaging, to ensure the proper usage of terms in their compositions. Adding the fact that the informal nature of many electronic communications often diminishes one's desire to carefully and properly use terminology, the ability to ensure the proper spellings and usages of linguistic terms becomes even more difficult. (Application, page 1, line 12 to page 2, line 5).

While automated spell checkers have been developed to assist users in ascertaining both the meaning and the proper spelling of linguistic terms, these programs are often limited to the extent that they are only capable of determining the meanings and/or proper spellings of linguistic terms that are present in their databases, which are often based upon recognized non-electronic dictionaries such as Webster's. While some spell checkers enable individual users to add other linguistic terms to their databases, a key requirement for doing so is that the users already know the proper spellings of those terms. (Application, page 2, lines 6-19).

The dynamic state of the public lexicon, and the continuous introduction of new technical terms in field such as law, technology, medicine, etc., make it difficult for users to ascertain the proper usages of linguistic terms. In fact, due to the amorphous nature of the Internet, in many

instances, a term may not have a single usage that is universally accepted as the "correct" usage. For example, is "e-mail" spelled with or without a dash? Should the term "data warehousing" have a hyphen? (Application, page 2, lines 20-28). Similar problems may also exist for company names (is the "com" in a dot-com company's name capitalized?), as well as slang expressions (is "cheese head" one word or two?). Moreover, acronyms may stand for different things (e.g., "DVD" has been considered by different people to stand for either "digital video disk" or "digital versatile disk"). (Application, page 2, line 29 to page 3, line 2).

To address these concerns, the Application discloses a number of automated analysis techniques for determining acceptable usages for a linguistic term, which are based predominantly upon tracking the usages of variants of the term by other individuals. In particular, consistent with independent claims 1, 24 and 37, a linguistic term may be analyzed by scanning a plurality of documents for variants of the linguistic term, and tracking relative occurrences of a plurality of variants of the linguistic term found in the plurality of documents during scanning to determine an acceptable usage of the linguistic term. (Application, page 4, lines 5-10). Additional support for these claims may be found, for example, in Figs. 6 and 7, and at page 17, line 3 to page 19, line 19 of the Application as filed.

Of note, each variant of the linguistic term found in each document is of the type that is intentionally chosen by an author of such document. (Application, page 4, lines 17-20). Moreover, variants of a term may differ from one another based upon differences such as "spelling, punctuation, capitalization, definition or meaning." (Application, page 6, lines 8-11).

Through tracking the relative occurrences of variants of a linguistic term, an acceptable usage of the linguistic term may often be ascertained. As described at page 6, lines 11-18 of the Application:

> the determination of an acceptable usage of a linguistic term may or may not represent the only permissible usage of that term. For example, in many instances, a newly-coined word may not have a single "accepted" usage – rather, multiple acceptable usages may develop among different groups of users. An acceptable usage may correspond to the most common usage of a term, although in some instances, an acceptable usage may be determined based

upon the frequency of occurrence of that usage exceeding a certain
threshold, or based on the type of audience, e.g., slang or formal.

While other manners of tracking variants may be used, in one implementation, which is
consistent with independent claim 23 as filed, performs the tracking of variants while a user
browses a plurality of web sites on the Internet. (Application, page 4, lines 13-20). Additional
support for this claim may be found, for example, in Fig. 6 and at page 7, lines 3-28 of the
Application as filed.

Another feature, which is the subject of independent claims 39 and 42, is the concept of
embedding preferred variants of a linguistic term within electronic documents. To support this
feature, a document may be disposed on a computer-readable signal bearing medium and
provided with an embedded spell definition tag that identifies an acceptable variant of a linguistic
term and a definition of the linguistic term. In addition, functionality may be supported to
automatically detect such a tag within the document after that document is retrieved from the
Internet, and in response to detecting the tag, automatically add the acceptable variant of the
linguistic term to an electronic dictionary. Further support for this feature may be found, for
example, at page 16, lines 25-29, as well as at page 7, lines 24-30 of the Application, which is
reproduced below:

> A novel HTML-type tag may also be supported to identify a
> trademark term, or other form of accepted usage, where the author
> of a document wishes to clarify a desired usage. With this tag ,a
> trademark owner could specify the exact spelling, and a user's
> spell checker would not have to rely on statistical sampling. A tag
> could also encourage the correct spelling of a new term from the
> start. It may be desirable to permit an analysis tool to scan for
> these tags and give them priority over other forms of sampling.

Other features are recited in the dependent claims, and will be discussed in greater detail
in the arguments section below.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A.   Claims 1, 9, 12, 24, 29-30 and 37-38 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,480,838 to Peterman (*Peterman*).

B.   Claims 2-8, 10, 13-14, 16-18, 20, 25-29, 31-33 and 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Peterman* in view of U.S. Patent No. 6,519,586 to Anick et al. (*Anick*).

C.   Claim 11 stands rejected under 35. U.S.C. § 103(a) as being unpatentable over *Peterman* in view of U.S. Patent No. 6,453,312 to Goiffon et al. (*Goiffon*).

D.   Claim 15 stands rejected under 35. U.S.C. § 103(a) as being unpatentable over *Peterman* and *Anick*, and further in view of U.S. Patent No. 5,799,276 to Komissarchik et al. (*Komissarchik*).

E.   Claims 19, 21-22, 34 and 36 stand rejected under 35. U.S.C. § 103(a) as being unpatentable over *Peterman* and *Anick*, and further in view of U.S. Patent No. 6,044,387 to Angiulo et al. (*Angiulo*).

F.   Claims 23 and 39 stand rejected under 35. U.S.C. § 103(a) as being unpatentable over *Anick* in view of *Peterman*.

G.   Claims 42-43 stand rejected under 35. U.S.C. § 103(a) as being unpatentable over *Angiulo*.

H.   Claims 1-10, 12-18, 20, 24-33, 35 and 37-38 stand rejected under 35. U.S.C. § 103(a) as being unpatentable over *Anick*.

I.   Claim 11 stands rejected under 35. U.S.C. § 103(a) as being unpatentable over
        Anick in view of *Goiffon*.

J.   Claim 15 stands rejected under 35. U.S.C. § 103(a) as being unpatentable over
        Anick in view of *Komissarchik*.

K.   Claims 19, 21-22, 34 and 36 stand rejected under 35. U.S.C. § 103(a) as being
        unpatentable over *Anick* in view of *Angiulo*.

VII. ARGUMENT

Applicants respectfully submit that the Examiner's rejections of claims 1-39 and 42-43
are not supported on the record, and should be reversed. Applicants will hereinafter address the
Examiner's rejections in the order presented in the Final Office Action. Within the discussion of
each rejection, the various claims that are the subject of the Examiner's rejections will further be
addressed in order, starting with the independent claims, and then addressing various dependent
claims reciting additional subject matter that is distinguishable from the prior art of record. In
some cases, specific discussions of particular claims are not made in the interests of streamlining
the appeal. The omission of a discussion with respect to any particular claim, however, should
not be interpreted as an acquiescence as to the merits of the Examiner's rejection of the claim,
particularly with respect to claims reciting features that are addressed in connection with the
rejections applied to other claims pending in the appeal.

A.   Claims 1, 9, 12, 24, 29-30 and 37-38 are novel over *Peterman*.

Applicants respectfully submit that the Examiner's §102(b) rejection of claims 1, 9, 12,
24, 29-30 and 37-38 based upon *Peterman* is not supported on the record, and should be
reversed. Anticipation of a claim under 35 U.S.C. §102 requires that "each and every element as
set forth in the claim is found, either expressly or inherently described, in a single prior art
reference." <u>Verdegaal Bros., Inc. v. Union Oil Co.</u>, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987),

quoted in <u>In re Robertson</u>, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999). Absent express description, anticipation under inherency requires extrinsic evidence that makes it clear that "the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." <u>Continental Can Co. v. Monsanto Co.</u>, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991), *quoted in* <u>In re Robertson</u> at 1951. "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." <u>Continental Can</u> at 1749, *quoted in* <u>In re Robertson</u> at 1951.

As will be discussed in greater detail below, *Peterman* does not disclose the various features recited in claims 1, 9, 12, 24, 29-30 and 37-38. As such, the rejections thereof should be reversed.

Independent Claim 1

Claim 1 generally recites a computer-implemented method of analyzing linguistic terms. The method includes scanning a plurality of documents for variants of a linguistic term, and tracking relative occurrences of a plurality of variants of the linguistic term found in the plurality of documents during scanning to determine an acceptable usage of the linguistic term. Claim 1 additionally recites that each variant of the linguistic term found in each document is "of the type that is intentionally chosen by an author of such document."

As such, the concept of a "variant" of a linguistic term within the context of claim 1 requires that the variant be an <u>intended</u> usage of a term by the author of any document that uses the term. Put another way, the authors of the documents that are scanned generally do not accidentally use the terms in the manner in which they appear in the documents. The fact that variants are <u>intended</u> usages, rather than <u>accidental</u>, is important to the overall utility of Applicants' claimed method, since one significant goal of the claimed method is to attempt to determine an <u>acceptable</u> usage of a term based upon how other individuals have chosen to use that term. Any errors or accidental usages that might be detected during the inventive method would in fact detract from determining an acceptable usage, since presumptively any accidental

usages would not even be found to be acceptable by those users that originally authored documents with such accidental usages.

Peterman generally discloses a system used to perform text-based searching of a database of documents created using Optical Character Recognition (OCR). *Peterman* recognizes that whenever a paper document is electronically scanned and processed by OCR, the resulting text file often contains errors due OCR scanning. For example, OCR programs often mistake upper case "I's" for the number "1" or the lower case "l." (*Peterman*, col. 1, line 38-col. 2, line 4). Whenever errors are present in a text file, however, terms found in that file may be incorrect, and as a result, performing a text search on the file may not return accurate results. For example, if a text file mistakenly includes the term "Iocate" (where lower case "l" is mistaken for an upper case "I"), a search looking for documents containing the text string "locate" would not otherwise detect a match.

To address this issue, *Peterman* processes a search request input by a user to additionally search for variants of the text strings provided in the search request. (*Peterman*, col. 2, lines 40-51). For example, if a user were to input a search request for the text string "locate", the *Peterman* system may recognize that there is a reasonable probability that the lower case "l" in the string could be mistaken for an upper case "I" or the number "1", and could expand the search to additionally search for the text strings "Iocate" and "1ocate."

While *Peterman* does disclose the concept of "variants", it is important to note that these "variants" are defined as being constructed from "word segments that represent OCR interpretations of portions of [a] search request." (*Peterman*, col. 2, lines 52-55). Furthermore, the word segments that are used to create variant words at search time are based upon a statistical table that has been generated experimentally at an earlier point in time than when the search is conducted. As discussed at col. 4, lines 7-22 of *Peterman*, a statistical table may be generated by printing a number of word processing documents, OCR scanning the printed documents, and then compared to the original documents to generate probabilities of occurrence for various errors. The resulting table, e.g., as illustrated in Fig. 6, includes probabilities that certain OCR errors may be found in a given document.

The Examiner argues, in rejecting claim 1 as being anticipated by *Peterman*, that *Peterman* discloses the tracking of variants. However, it is clear from a reading of *Peterman* that these variants are due to OCR scanning errors, and not due to any <u>intentional</u> or chosen usages of variants by authors of documents. Claim 1 requires that "each variant of the linguistic term found in each document is of the type that is intentionally chosen by an author of such document." In contrast, the variants in *Peterman* are misspellings of terms that occur when an imaged document is scanned in and converted to text. *Peterman* discloses, for example, that "potential OCR-produced alternatives (errors) for each character and character string and each alternative's probability of occurrence are determined." (col. 4, lines 9-11). *Peterman* also discloses that:

> "[i]t is desirable to have a mechanism that allows a search engine to accurately locate electronic documents that have been created using OCR software. <u>Preferably, such a mechanism will recognize errors that are typically produced by OCR software and account for errors having the highest probability of occurrence</u>." (col. 2, lines 28-34) (*emphasis added*).

Peterman therefore does not disclose the tracking of occurrences of variants of a linguistic term to determine an acceptable usage of the linguistic term, where each variant is "of the type that is intentionally chosen by an author of such document," as is required by claim 1. To the contrary, the variants disclosed in *Peterman* are decidedly <u>unintentional</u> as they reflect strings that are improperly generated as a result of OCR scanning. In fact, given that the statistical table in *Peterman* is generated by printing a copy of an electronic document, OCR scanning the printed copy, and determining differences between the OCR scanned version and the original version of the electronic document, it is quite apparent that the only terms that are intended in *Peterman* are those present in the original electronic document, and the variants if anything are the unintended errors that differ from the intended terms in the original document. Accordingly, *Peterman* falls short of anticipating this feature of claim 1.

Peterman also fails to disclose tracking relative occurrences of variants of a linguistic term "during scanning" as also required by claim 1. Instead, the scanning process of *Peterman*, which occurs prior to performing any text searching, generates errors and probabilities for characters and character strings (col. 4, lines 8-11). Variant words, however, are not generated until after scanning has been performed, when preprocessing a search (col. 4, lines 35-39). The variant words are based upon search terms entered by a user, and are generated by modifying the search terms using the most likely expected errors previously determined during the scanning process. Accordingly, *Peterman* also falls short of anticipating this feature of claim 1.

Peterman also fails to disclose tracking relative occurrences of variants of a linguistic term "to determine an acceptable usage of the linguistic term" as also required by claim 1. Applicants define an "acceptable usage" at page 6, lines 11-18 of the Application, which states:

> the determination of an acceptable usage of a linguistic term
> may or may not represent the only permissible usage of that
> term. For example, in many instances, a newly-coined word
> may not have a single "accepted" usage – rather, multiple
> acceptable usages may develop among different groups of
> users. An acceptable usage may correspond to the most
> common usage of a term, although in some instances, an
> acceptable usage may be determined based upon the
> frequency of occurrence of that usage exceeding a certain
> threshold, or based on the type of audience, e.g., slang or
> formal.

"Acceptable" is defined as "worthy of being accepted."[1] "Accepted" in turn includes the following definitions: "To regard as proper, usual, or right: *Such customs are widely accepted*;" "To regard as true; believe in: *Scientists have accepted the new theory*;" "To understand as having a specific meaning."[2] A common thread to an "accepted usage" of a term is that at least a segment of individuals approve of the use of that variant of the term.

---

[1]*The American Heritage Dictionary of the English Language*, Fourth Edition, Houghton Mifflin Company (2000) (*downloaded from* www.dictionary.com).

[2]*Id.*

The variant words in *Peterman*, on the other hand, are not "acceptable usages." In fact, the variant words are most certainly "unacceptable usages" because they are generated automatically to attempt to find character strings in a document that a searching user would otherwise not find when conducting a search of an acceptable usage of a term. Accordingly, *Peterman* also falls short of anticipating this feature of claim 1.

In addressing Applicants' arguments, at ¶17 of the Final Office Action, the Examiner argues that:

> Though *Peterman* does not *explicitly* disclose that each
> variant of the linguistic term found in each document is of the
> type that is intentionally chosen by an author of such
> document, the fact that the words in each document are used
> by the document's author when writing the document implies
> that the variants of the linguistic term, which are words in the
> document, must be chosen by the document's author."

With all due respect to the Examiner, however, the variants in *Peterman* are the result of OCR scanning errors, without any connection whatsoever to the original authorship of the source documents. The scanning process that generates the statistical table used to create variants in fact operates by detecting differences between the original documents written by their respective authors and the text files generated by the OCR scanning process. As a result, the text files themselves contain character strings that are <u>different</u> from the original terms used by the document authors. The variants, once constructed, are by definition <u>not</u> chosen by the authors of the documents.

The Examiner then takes the position in the Final Office Action that a "search term" corresponds to a linguistic term in *Peterman*, and argues based upon this construction that a chosen usage is found when a term variant has a probability of occurrence higher than a certain threshold. The Examiner also argues that col. 2, lines 40-67 of *Peterman* discloses "tracking relative occurrences . . . during scanning." By taking the position that a search term is a linguistic term, however, the Examiner cannot read claim 1 onto *Peterman*. As discussed above, variants of search terms are constructed from characters or segments in a statistical table. Moreover, this process occurs during pre-processing of a search request, and <u>after</u> construction of the statistical

table. Given the Examine's interpretation of a linguistic term as being a search term, therefore, the "variants" of the linguistic term cannot exist until after a search term is entered (note that entire words are not stored in the statistical table in *Peterman*, rather, the characters in a search term are analyzed to determine whether it makes sense to substitute any individual characters to create a variant term). Claim 1, however, requires "tracking relative occurrences of a plurality of variants of [a] linguistic term found in the plurality of documents during scanning," and the only functionality in *Peterman* that is even arguably analogous to "tracking relative occurrences" occurs during generation of the statistical table. This functionality, however, does not occur on "variants" as variants do not exist during the generation of the statistical table.

Furthermore, the claim requires "scanning a plurality of documents for variants of a linguistic term." Given the Examiner's interpretation of a linguistic term corresponding to a search term, therefore, the analogous "scanning" operation in *Peterman* is the actual search of the OCR scanned files in connection with executing the requested search, and not the operation that occurs during the construction of the statistical table. However, claim 1 requires "tracking relative occurrences" to occur during scanning. The only functionality arguably analogous in *Peterman* to "tracking relative occurrences", however, occurs during the construction of the statistical table, where the probabilities of certain errors occurring are generated based upon the occurrence of errors (*see, e.g.,* col. 4, lines 16-18). The generation of variant words that occurs immediately prior to performing a search (the operation the Examiner analogizes to "scanning ... for variants of a linguistic term") does not track relative occurrences - instead, probabilities are calculated by multiplying the probabilities that were previously computed during the construction of the statistical table (*see, e.g.,* col. 2, line 66 to col. 3, line 2). Therefore there is no operation in *Peterman* analogous to "tracking relative occurrences of ... variants" that occurs during the search (where the original search term and the variants thereof are used to search the database), particularly an operation that is done for the recited purpose of "determin[ing] an acceptable usage" of a linguistic term.

Claim 1 is therefore novel over *Peterman*, and the rejection should be reversed.

Claim 1 is also non-obvious over *Peterman*, as there is no suggestion in the art to modify *Peterman* to be used to track occurrences of variants of a linguistic term that are intentionally

chosen by authors of the documents within which those variants are found. Indeed, *Peterman* itself <u>teaches away</u> from such a modification, as *Peterman* discloses at col. 2, lines 5-27, that a prior art technique that uses fuzzy searching can undesirably result in too many hits because of the inclusion of alternate search terms that represent other legitimate terms. *Peterman* also states, at col. 3, lines 13-16, that its manner of creating search term variants (which is based upon the probability of an OCR error occurring for a particular character or string of characters in a term) is an improvement over the art "because the variant words constructed in this manner are rarely legitimate words in the natural language of the database." It is evident that *Peterman* attempts to generate search terms that will not generate false matches with terms that are "legitimate," or intended to be used, by the authors of any searched documents.

Applicants therefore respectfully submit that claim 1 is novel over *Peterman*, and the rejection of claim 1 should be reversed. Reversal of the Examiner's rejection, and allowance of claim 1 and of claims 2-22 which depend therefrom, are therefore respectfully requested.

Independent Claims 24 and 37

Each of these claims recites the concept of determining an acceptable usage of a linguistic term at least in part by tracking relative occurrences of a plurality of variants of the linguistic term, where those variants are of the type that are intentionally chosen by authors of scanned documents where those variants are found. As discussed above in connection with claim 1, this concept is not disclosed or suggested by *Peterman*. Accordingly, claims 24 and 37 are patentable over the prior art of record for the same reasons presented above for claim 1. Reversal of the Examiner's rejections and allowance of claims 24 and 37, as well as of claims 25-36 and 38 which depend therefrom, are therefore respectfully requested.

Dependent Claims 9, 12, 29-30 and 38

Claims 9, 12, 29-30 and 38 are not argued separately.

B.   Claims 2-8, 10, 13-14, 16-18, 20, 25-29, 31-33 and 35 are non-obvious over _Peterman_ and _Anick_.

Applicants respectfully submit that the Examiner's §103(a) rejections of claims 2-8, 10, 13-14, 16-18, 20, 25-29, 31-33 and 35 based upon _Peterman_ and _Anick_ are not supported on the record, and should be reversed, given that the Examiner has failed to establish a _prima facie_ case of obviousness as to any of these claims. A _prima facie_ showing of obviousness requires that the Examiner establish that the differences between a claimed invention and the prior art "are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. §103(a). Such a showing requires that all claimed features be disclosed or suggested by the prior art. Such a showing also requires objective evidence of the suggestion, teaching or motivation to combine or modify prior art references, as "[c]ombining prior art references without evidence of such a suggestion, teaching or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability – the essence of hindsight." In re Dembiczak, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

Applicants respectfully submit that, in the instant case, the Examiner has failed to establish a _prima facie_ case of obviousness as to the aforementioned claims, and as such, the rejections thereof should be reversed.

Dependent Claims 2-3 and 25

Claims 2-3 and 25 are not argued separately.

Dependent Claims 4 and 26

Claim 4 (to which claim 26 is similar) depends from claim 2, and additionally recites the step of determining whether a retrieved document has already been scanned before scanning the retrieved document. In rejecting claim 4, the Examiner acknowledges that neither reference discloses the claimed concept, but asserts that it would have been obvious to modify the combination because computers includes caches. However, the fact that claim 4 recites determining whether a document has already been scanned prior to scanning the document

ensures that any variants in that document will not be counted multiple times, which could otherwise skew the tracked occurrences from which acceptable usages may be determined. There is no appreciation in either reference of this concept, and as such, the Examiner has failed to provide any evidence of a motivation to modify either reference to provide such functionality. Applicants are not claiming scanning documents in the abstract, the scanning is specifically for variants of a linguistic term, and as such, the fact that a computer may have a cache is irrelevant to the particular scanning operation recited in claim 4. Reversal of the Examiner's rejections of claims 4 and 26 is therefore respectfully requested.

Dependent Claims 5 and 27

Claims 5 and 27 are not argued separately.

Dependent Claims 6 and 28

Claim 6 (to which claim 28 is similar) depends from claim 1, and additionally recites browsing a second plurality of documents retrieved from at least one Internet web site in response to user input, where the first plurality of documents are scanned concurrently with browsing the second plurality of documents. In rejecting claim 6, the Examiner acknowledges that neither reference discloses the concurrent browsing of one set of documents while scanning another set of documents, but asserts that it would have been obvious to modify the combination because *Anick* discloses both browsing and measuring facet frequency. Applicants can find, however, no suggestion in *Anick* that such concurrent operation may be used. Applicants submit that the Examiner is engaged in hindsight-based reasoning, as the only suggestion to perform concurrent operations is provided in Applicants' disclosure. Reversal of the Examiner's rejections of claims 6 and 28 is therefore respectfully requested.

Dependent Claim 7

Claim 7 depends from claim 6, and additionally recites that the scanning of documents occurs in a background thread. In rejecting claim 7, the Examiner acknowledges that neither reference discloses the use of a background thread for this purpose, but the Examiner asserts that

Anick suggests such a configuration because it suggests concurrent operations. As noted above in connection with claim 6, however, Applicants can find no suggestion in *Anick* that such concurrent operation may be used. Applicants submit that the Examiner is again engaged in hindsight-based reasoning with respect to claim 7, as the only suggestion to perform concurrent operations is provided in Applicants' disclosure. Reversal of the Examiner's rejection of claim 7 is therefore respectfully requested.

Dependent Claims 8, 10, 13-14, 16, 18, 29, and 31-33

Claims 8, 10, 13-14, 16, 18, 29, and 31-33 are not argued separately.

Dependent Claim 17

Claim 17 depends from claim 1, and additionally recites that tracking relative occurrences includes weighting occurrences based upon document types of the documents within which such occurrences are found. Put another way, claim 17 is capable of emphasizing or de-emphasizing certain occurrences based upon the type of document in which they are found. In rejecting claim 17, the Examiner argues that *Anick* discloses this feature in Fig. 3B, col. 3 and col. 10. Applicants, however, can find no reference to weighting occurrences based upon document type in these passages. The passages do refer to different types of documents, and the fact that weighting may be performed on the basis of "density" or "frequency" in a single document or a corpus of documents. However, there is no teaching related to altering weights based specifically upon the type of document. Applicants submit that the Examiner is again engaged in hindsight-based reasoning with respect to claim 17, as the only suggestion to weight based upon document type is provided in Applicants' disclosure. Reversal of the Examiner's rejection of claim 17 is therefore respectfully requested.

Dependent Claims 20 and 35

Claim 20 (to which claim 35 is similar) depends from claim 1, and additionally recites that tracking relative occurrences includes storing context information associated with each occurrence of a variant of the linguistic term. In rejecting claim 20, the Examiner asserts that

Anick discloses this feature in col. 6. The cited passage, however, merely recognizes that lexical constructs related to facets may be consistent across a corpus of documents, but is entirely silent with respect to storing context information about a particular occurrence in a document. Furthermore, the claimed concept assists users in recalling how a particular occurrence of a variant of a term has been used, which can be useful in determining an appropriate acceptable usage. Neither reference appreciates the desirability of this feature, nor suggests any mechanism for storing context information for this or any other purpose. Applicants therefore submit that the Examiner is engaged in hindsight-based reasoning in connection with these claims as well. Reversal of the Examiner's rejections of claims 20 and 25 is therefore respectfully requested.

C.   **Claim 11 is non-obvious over *Peterman* and *Goiffon*.**

Claim 11 depends from claim 1, and additionally recites that the linguistic term is an acronym. The Examiner admits that *Peterman* does not disclose a linguistic term implemented as an acronym, but relies on *Goiffon* for allegedly disclosing this feature. While *Goiffon* does disclose that acronyms may be related to other concepts when formulating a query, it is important to note that claim 11, when read in combination with the features in claim 1, is directed to tracking occurrences of variants of a linguistic term that is an acronym. By doing so, a user may be able to ascertain acceptable meanings for a given acronym. *Goiffon* does not disclose tracking occurrences of a given acronym, and as such, does not appreciate the benefits of doing so in the manner recited in claim 11. Accordingly, claim 11 is non-obvious over the proposed combination, and reversal of the Examiner's rejection of the claim is respectfully requested.

D.   **Claim 15 is non-obvious over *Peterman, Anick* and *Komissarchik*.**

Claim 15 ultimately depends from claim 1, and is therefore novel over *Peterman* for the same reasons as discussed above. Moreover, neither of *Anick* or *Komissarchik*, when combined with *Peterman* disclose or suggest those features recited in claim 1. Accordingly, claim 15 is patentable over the proposed combination irrespective of whether the additional features recited in claim 15 are disclosed or suggested by the combination. Reversal of the Examiner's rejection of claim 15 is therefore respectfully requested.

E.   Claims 19, 21-22, 34 and 36 are non-obvious over *Peterman, Anick* and *Angiulo*.

Claims 19 and 34

Claim 19 (to which claim 34 is similar) ultimately depends from claim 1, and is therefore novel over *Peterman* for the same reasons as discussed above. Moreover, neither of *Anick* or *Angiulo*, when combined with *Peterman* disclose or suggest those features recited in claim 1. Accordingly, claim 19 is patentable over the proposed combination irrespective of whether the additional features recited in claim 19 are disclosed or suggested by the combination. Reversal of the Examiner's rejection of claims 19 and 34 is therefore respectfully requested.

Claims 21 and 36

Claim 21 (to which claim 36 is similar) depends from claim 1, and additionally recites that scanning the documents includes scanning a document for a spell definition tag that identifies a variant of the linguistic term. In rejecting claim 21, the Examiner asserts in ¶10 of the Final Office Action that *Angiulo* discloses conventional spell checking, and then asserts that it would have been obvious to modify *Angiulo* to scan for a spell definition tag. As will be discussed in greater detail below in connection with claims 39 and 42 (which discussion applies equally to claims 21 and 36), however, spell checking a document falls far short of disclosing the scanning of a "spell definition tag" as recited in claim 21. As recited in the claim, a "spell definition tag" identifies a variant of a linguistic term - put another way, the spell definition tag explicitly calls out one acceptable usage of the linguistic term as specified by the author of the document. The Examiner can provide absolutely no evidence of a motivation to combine the cited references in such a manner as to suggest the use of a specific tag as recited in claim 21. Applicants submit that the Examiner is again engaged in hindsight-based reasoning in connection with this claim, as there is no suggestion of any type of dedicated tag for use in identifying a variant of a linguistic term. Reversal of the Examiner's rejections of claims 21 and 36 is therefore respectfully requested.

Claim 22

Claim 22 depends from claim 1, and additionally recites that scanning the documents and tracking relative occurrences are performed responsive to detecting a variant of the linguistic term during spell checking of a document. Put another way, the scanning and tracking steps are effectively triggered as a result of detecting a variant during a spell checking operation. In rejecting claim 22, the Examiner asserts in ¶10 of the Final Office Action that *Angiulo* discloses conventional spell checking, and then asserts that it would have been obvious to combine *Angiulo* with the other references. The Examiner's analysis with respect to this claim, however, is superficial in nature, as there is not even an attempt by the Examiner to address the claim language that specifically ties the scanning and tracking steps to the occurrence of a particular action (here the detection of a variant during a spell check). Applicants submit that the Examiner is again engaged in hindsight-based reasoning in connection with this claim, as there is no suggestion in the art for triggering the aforementioned steps in response to the aforementioned stimulus. Reversal of the Examiner's rejection of claim 22 is therefore respectfully requested.

F.   Claims 23 and 39 are non-obvious over *Anick* and *Peterman*.

Independent Claim 23

Claim 23 generally recites a method of analyzing linguistic terms. The method includes browsing a plurality of web sites on the Internet in response to user input, and concurrently with browsing the plurality of web sites, tracking relative occurrences of a plurality of variants of a linguistic term found in the plurality of web sites to determine an acceptable usage of the linguistic term. Claim 23, similar to claim 1, also recites that each variant of the linguistic term found in each web site is "of the type that is intentionally chosen by an author of such web site."

Claim 23 is rejected based upon *Anick* in view of *Peterman*, and in connection with this rejection, the Examiner acknowledges that *Anick* does not disclose tracking relative occurrences of a plurality of variants of a linguistic term to determine an acceptable usage of a linguistic term. Instead, the Examiner relies on *Peterman* for allegedly disclosing this concept. However, as discussed above in connection with claim 1, *Peterman* not only does not disclose or suggest, but

expressly teaches away from, tracking occurrences of variants of a linguistic term where those variants are of the type that are <u>intentionally</u> chosen. Therefore, Applicants submit that claim 23 is patentable over the combination of *Anick* and *Peterman* for the same reasons as presented above for claim 1. Reversal of the Examiner's rejection and allowance of claim 23 are therefore respectfully requested.

<u>Independent Claim 39</u>

Claim 39 generally recites a program product that includes a document, and a computer-readable signal bearing medium bearing the document. The document includes a tag that identifies an acceptable variant of a linguistic term <u>and</u> a definition of the linguistic term.

In rejecting claim 39 based upon the combination of *Anick* and *Peterman*, the Examiner states only that "claim 39 is a program product of method claim 23." However, claim 39 recites a tag in a document that identifies "an acceptable variant of a linguistic term and a definition of the linguistic term," a feature that is not recited in claim 23.

Moreover, neither *Anick* nor *Peterman* discloses any document with an embedded tag that includes either a variant of a linguistic term or a definition of the linguistic term. Precisely how the Examiner considers the references to teach these concepts is unclear, as Applicants can not even find anything even arguably relevant to these concepts in either reference. Accordingly, Applicants submit that the Examiner has failed to provide the necessary basis to establish a *prima facie* case of obviousness under 35 U.S.C. §103. Reversal of the Examiner's rejection and allowance of claim 39 are respectfully requested.

In addition, Applicants note that the Examiner tersely attempts to rebut Applicants' arguments in ¶17 of the Final Office Action. The Examiner, however, merely appears to assert that the documents being scanned in *Anick* could be HTML documents, and that HTML documents have tags. The Examiner completely ignores the fact that the tags recited in claim 39 are specifically used to provide both a <u>variant</u> and a <u>definition</u> of a linguistic term. Accordingly, the Examiner has failed to adequately rebut Applicants' arguments, and the rejection of claim 39 should be withdrawn.

G.   Claims 42-43 are non-obvious over *Angiulo*.

Independent Claim 42

Claim 42 generally recites a method of managing an electronic dictionary. The method includes detecting a spell definition tag within a document retrieved from the Internet that identifies an acceptable variant of a linguistic term, and in response to detecting the spell definition tag, automatically adding the acceptable variant of the linguistic term to an electronic dictionary.

In rejecting claim 42, the Examiner relies on *Angiulo*, and in particular the conventional capability of a spell checker in scanning a document and being updated by a user with a spelling that is not found in an electronic dictionary.

The Examiner admits that *Angiulo* does not disclose a spell definition tag, and argues that it was well known to include tags for various reasons in a web document. With all due respect, however, Applicants assert that such an argument is replete with hindsight based reasoning, as absolutely no objective evidence of a motivation to incorporate a tag for this specific reason is provided by the Examiner.

Applicants submit that the fact that tags in web documents are known falls far short of disclosing or suggesting a specific type of tag that can be embedded in a document and used to automatically add a term to an electronic dictionary. *Angiulo* discloses at the most that a user, when presented with a term that is not in an electronic dictionary, can opt to manually add that term to the electronic dictionary. *Angiulo* does not even suggest that a term can be added automatically to an electronic dictionary in response to any operation other than a manual operation that is initiated by a user when an unrecognized term is found during a spell check, much less in response to detecting a particular type of tag that is embedded in a retrieved document.

The spell definition tag recited in claim 42 provides a unique and unexpected advantage over *Angiulo* and the other art of record, by potentially enabling the author of a document to automatically cause an electronic dictionary for the reader of a document to be updated with an acceptable variant of a term. Put another way, a document created by one individual can cause

the electronic dictionary for another individual to automatically add a term. Moreover, it is important to note that the claimed operation need not occur when a spell check operation is being performed, but rather occurs in response to a tag being detected in a document that is retrieved from the Internet. There is no disclosure in *Angiulo* that even arguably suggests such functionality.

Applicants therefore respectfully submit that independent claim 42 is patentable over the prior art of record. Reversal of the Examiner's rejection and allowance of claim 42, as well as of claim 43 which depends therefrom, are therefore respectfully requested.

Dependent Claim 43

Dependent claim 43 is not argued separately.

H.   Claims 1-10, 12-18, 20, 24-33, 35 and 37-38 are non-obvious over *Anick*.

Independent Claim 1

As noted above in connection with the §102 rejection of claim 1, this claim recites, in part, scanning a plurality of documents for variants of a linguistic term, and tracking relative occurrences of a plurality of variants of the linguistic term found in the plurality of documents during scanning to determine an acceptable usage of the linguistic term. Claim 1 additionally recites that each variant of the linguistic term found in each document is "of the type that is intentionally chosen by an author of such document."

The Examiner apparently rejects claim 1 as being obvious in view of *Anick*. The Examiner argues at ¶13 of the subject Office Action that Anick discloses searching for and tracking the occurrence of "facets." However, Applicants are unsure as to whether the Examiner intended to maintain this rejection, as the Examiner states in ¶11 of the Final Office Action that *Anick* does not disclose "tracking relative occurrences of a plurality of variants of a linguistic term found in [a] plurality of web sites do determine an acceptable usage of the linguistic term," which seems to be entirely inconsistent with the Examiner's position with respect to claim 1. In

addition, the Examiner did not address Applicants' prior arguments with respect to the rejection of claim 1 based upon *Anick*.

Nonetheless, *Anick* does not disclose or suggest each and every feature of claim 1. *Anick* discloses that new concepts are often expressed as concatenations of existing terms instead of new, single words. *Anick* also discloses locating facets of a particular search term through lexical dispersion that measures the number of different words with which that particular word co-occurs within such syntactic contexts. *Anick* discloses that the more different words that are identified, the more likely that the search term will represent a useful conceptual category relevant to a query (col. 2, lines 40-55).

In addition, in *Anick* the facets are presented to a user in connection with the results of a search based upon the search term, and are used to reformulate a query to effectively narrow the results to focus on a particular conceptual category. As shown in Fig. 3B, for example, a query using the search term "cooking" results in 265 hits, along with the display of a number of facets that can be used to narrow the search. When a user selects one of the facets, e.g., "pecorino cheese," the search is focused to include only those documents that contain both "cooking" and "pecorino cheese."

Thus, the "facets" of *Anick* are not "variants of a linguistic term." Indeed, even looking at the example of Fig. 3B, it is evident that the different facets relating to the word "cheese" are different terms altogether, not variations of a single term. Facets are more appropriately characterized by *Anick* as "key informational concepts" that can be identified within a document based on a query search term. The facets of *Anick* involve identifying relations between a search term and co-occurring words for the purpose of defining different contexts in which the search term might be used.

In contrast, the "variants of a linguistic term" recited in claim 1 relate to variations of that term, not to co-occurring words, and the recited purpose of identifying the variants in the claims is to determine an "acceptable usage" of the linguistic term, not to identify contextual domains for that linguistic term. The Examiner has provided no explanation of how a facet could be interpreted as a "variation" of a linguistic term, much less how a facet could be identified as an "acceptable usage" of that term.

Accordingly, the Examiner has failed to establish a *prima facie* case of obviousness as to claim 1 based solely upon *Anick*. Moreover, Applicants respectfully submit that even if *Anick* was considered in combination with *Peterman*, the proposed combination would still not disclose or suggest the invention recited in claim 1. Moreover, given that *Peterman* expressly teaches away from the invention recited in claim 1, Applicants respectfully submit that one of ordinary skill in the art would not look to modify either of *Peterman* or *Anick* to arrive at Applicants' claimed invention. Claim 1 is therefore non-obvious over the prior art of record, and reversal of the Examiner's rejection based upon *Anick* is respectfully requested.

Independent Claims 24 and 37

Each of these claims recites the concept of determining an acceptable usage of a linguistic term at least in part by tracking relative occurrences of a plurality of variants of the linguistic term, where those variants are of the type that are intentionally chosen by authors of scanned documents where those variants are found. As discussed above in connection with claim 1, this concept is not disclosed or suggested by *Anick*. Accordingly, claims 24 and 37 are patentable over the prior art of record for the same reasons presented above for claim 1. Reversal of the Examiner's rejections of claims 24 and 37 based upon *Anick* are therefore respectfully requested.

Dependent Claims 2-10, 12-18, 20, 25-33, 35 and 38

Among the dependent claims rejected as being obvious over *Anick*, a vast majority of these claims were also rejected as being obvious over the combination of *Peterman* and *Anick*. To the extent that these claims are argued separately above in Section VII.B., these claims are patentable over *Anick* for the same reasons discussed above as to why they are patentable over the combination of *Peterman* and *Anick*. Applicants therefore respectfully request reversal of the Examiner's rejections of these claims for the same reasons presented above.

I.   <u>Claim 11 is non-obvious over *Anick* and *Goiffon*.</u>

Claim 11 ultimately depends from claim 1, and is therefore non-obvious over *Anick* for the same reasons as discussed above. Moreover, *Goiffon*, when combined with *Anick* does not disclose or suggest those features recited in claim 1. Accordingly, claim 11 is patentable over the proposed combination irrespective of whether the additional features recited in claim 11 are disclosed or suggested by the combination. Reversal of the Examiner's rejection of claim 11 is therefore respectfully requested.

J.   <u>Claim 15 is non-obvious over *Anick* and *Komissarchik*.</u>

Claim 15 ultimately depends from claim 1, and is therefore non-obvious over *Anick* for the same reasons as discussed above. Moreover, *Komissarchik*, when combined with *Anick* does not disclose or suggest those features recited in claim 1. Accordingly, claim 15 is patentable over the proposed combination irrespective of whether the additional features recited in claim 15 are disclosed or suggested by the combination. Reversal of the Examiner's rejection of claim 15 is therefore respectfully requested.

K.   <u>Claims 19, 21-22, 34 and 36 are non-obvious over *Anick* and *Angiulo*.</u>

Each of claims 19, 21-22, 34 and 36 was also rejected as being obvious over *Peterman, Anick* and *Angiulo,* and as discussed above in Section VII.F., each of these claims is non-obvious over that combination of references. Given that each of these claims is non-obvious over the combination of *Peterman, Anick* and *Angiulo,* the claims are likewise non-obvious over a subset of these references. The Board is therefore directed to Section VII.F. above for a more detailed discussion of the patentability of each of these claims. Applicants respectfully request reversal of the Examiner's rejections of these claims for the same reasons presented above.

CONCLUSION

In conclusion, Applicants respectfully request that the Board reverse the Examiner's rejections of claims 1-39 and 42-43, and that the Application be passed to issue. If there are any
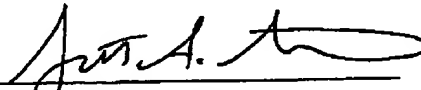
questions regarding the foregoing, please contact the undersigned at 513/241-2324. Moreover, if any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,

WOOD, HERRON & EVANS, L.L.P.

Date: 30 MARCH 2006

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VIII. CLAIMS APPENDIX: CLAIMS ON APPEAL (S/N 09/751,574)

1. (Once Amended) A computer-implemented method of analyzing linguistic terms, the method comprising:

    (a) scanning a plurality of documents for variants of a linguistic term; and

    (b) tracking relative occurrences of a plurality of variants of the linguistic term found in the plurality of documents during scanning to determine an acceptable usage of the linguistic term, wherein each variant of the linguistic term found in each document is of the type that is intentionally chosen by an author of such document.

2. (Original) The method of claim 1, further comprising retrieving the plurality of documents from a network, wherein scanning the plurality of documents includes scanning each document subsequent to retrieval of the document from the network.

3. (Original) The method of claim 2, wherein retrieving the plurality of documents from the network comprises retrieving the plurality of documents from at least one Internet web site in response to a user browsing the at least one Internet web site, and wherein scanning the plurality of documents includes scanning each document upon retrieval of that document from the at least one Internet web site.

4. (Original) The method of claim 2, further comprising determining whether a retrieved document has already been scanned before scanning the retrieved document.

5. (Original) The method of claim 2, further comprising determining whether to scan a retrieved document based upon a source parameter associated with the linguistic term.

6. (Original) The method of claim 1, further comprising browsing a second plurality of documents retrieved from at least one Internet web site in response to user input, wherein scanning the first plurality of documents is performed concurrently with browsing the second plurality of documents.

- A-1-

7. (Original) The method of claim 6, wherein scanning the first plurality of documents is performed in a background thread while documents from the second plurality of documents are being browsed.

8. (Original) The method of claim 7, wherein scanning the first plurality of documents includes scanning documents stored in a local history cache.

9. (Original) The method of claim 1, wherein the linguistic term comprises a single word.

10. (Original) The method of claim 1, wherein the linguistic term comprises a phrase.

11. (Original) The method of claim 1, wherein the linguistic term comprises an acronym.

12. (Original) The method of claim 1, wherein the plurality of variants differ from one another based upon at least one of punctuation, spelling, capitalization, hyphenation, and definition.

13. (Original) The method of claim 1, wherein scanning the plurality of documents includes scanning a document for an enumerated variant of the linguistic term.

14. (Original) The method of claim 1, wherein scanning the plurality of documents includes scanning a document for an unenumerated variant of the linguistic term.

15. (Original) The method of claim 14, wherein scanning the document for the unenumerated variant of the linguistic term includes scanning the document using phonetic comparison.

- A-2-

16. (Original) The method of claim 1, wherein tracking relative occurrences of the plurality of variants includes weighting occurrences based upon locations of such occurrences within the plurality of documents.

17. (Original) The method of claim 1, wherein tracking relative occurrences of the plurality of variants includes weighting occurrences based upon document types of the documents within which such occurrences are found.

18. (Original) The method of claim 1, further comprising storing a variant of the linguistic term in an electronic dictionary.

19. (Original) The method of claim 18, further comprising spell checking a document using the electronic dictionary subsequent to storing the variant in the electronic dictionary.

20. (Original) The method of claim 1, wherein tracking relative occurrences of the plurality of variants includes storing context information associated with each occurrence of a variant of the linguistic term.

21. (Original) The method of claim 1, wherein scanning the plurality of documents includes scanning a document for a spell definition tag that identifies a variant of the linguistic term.

22. (Original) The method of claim 1, wherein scanning the plurality of documents and tracking relative occurrences are performed responsive to detecting a variant of the linguistic term during spell checking of a document.

23. (Once Amended) A method of analyzing linguistic terms, the method comprising:

    (a) browsing a plurality of web sites on the Internet in response to user input; and

- A-3-

(b) concurrently with browsing the plurality of web sites, tracking relative occurrences of a plurality of variants of a linguistic term found in the plurality of web sites to determine an acceptable usage of the linguistic term, wherein each variant of the linguistic term found in each web site is of the type that is intentionally chosen by an author of such web site.

24. (Once Amended) An apparatus, comprising:

    (a) a memory; and

    (b) a program resident in the memory and configured to determine an acceptable usage of a linguistic term by scanning a plurality of documents for variants of the linguistic term and tracking relative occurrences of a plurality of variants of the linguistic term found in the plurality of documents during scanning, wherein each variant of the linguistic term found in each document is of the type that is intentionally chosen by an author of such document.

25. (Original) The apparatus of claim 24, wherein the program is further configured to retrieve the plurality of documents from at least one Internet web site in response to a user browsing the at least one Internet web site and scan the plurality of documents by scanning each document upon retrieval of that document from the at least one Internet web site.

26. (Original) The apparatus of claim 25, wherein the program is further configured to determine whether a retrieved document has already been scanned before scanning the retrieved document.

27. (Original) The apparatus of claim 25, wherein the program is further configured to determine whether to scan a retrieved document based upon a source parameter associated with the linguistic term.

28. (Original) The apparatus of claim 24, wherein the program is further configured to browse a second plurality of documents retrieved from at least one Internet web site in response

to user input, and scan the first plurality of documents concurrently with browsing the second plurality of documents.

29. (Original) The apparatus of claim 24, wherein the linguistic term is selected from the group consisting of a single word, a phrase, and an acronym.

30. (Original) The apparatus of claim 24, wherein the plurality of variants differ from one another based upon at least one of punctuation, spelling, capitalization, hyphenation, and definition.

31. (Original) The apparatus of claim 24, wherein the program is configured to scan the plurality of documents by scanning a document for an enumerated variant of the linguistic term.

32. (Original) The apparatus of claim 24, wherein the program is configured to scan the plurality of documents by scanning a document for an unenumerated variant of the linguistic term.

33. (Original) The apparatus of claim 24, wherein the program is configured to track relative occurrences of the plurality of variants by weighting occurrences based upon at least one of locations of such occurrences within the plurality of documents, and document types of the documents within which such occurrences are found.

34. (Original) The apparatus of claim 26, wherein the program is further configured to store a variant of the linguistic term in an electronic dictionary, the apparatus further comprising a spell checker configured to spell check a document using the electronic dictionary subsequent to the variant being stored in the electronic dictionary.

35. (Original) The apparatus of claim 26, wherein the program is further configured to store context information associated with each occurrence of a variant of the linguistic term.

- A-5-

36. (Original) The apparatus of claim 26, wherein the program is configured to scan a document for a spell definition tag that identifies a variant of the linguistic term.

37. (Twice Amended) A program product, comprising:

(a) a program configured to determine an acceptable usage of a linguistic term by scanning a plurality of documents for variants of the linguistic term and tracking relative occurrences of a plurality of variants of the linguistic term found in the plurality of documents during scanning, wherein each variant of the linguistic term found in each document is of the type that is intentionally chosen by an author of such document; and

(b) a computer-readable signal bearing medium bearing the program.

38. (Once Amended) The program product of claim 37, wherein the computer-readable signal bearing medium includes at least one of a transmission medium and a recordable medium.

39. (Once Amended) A program product, comprising:

(a) a document, the document including a tag that identifies an acceptable variant of a linguistic term and a definition of the linguistic term; and

(b) a computer-readable signal bearing medium bearing the document.

40. - 41. (Canceled)

42. (Original) A method of managing an electronic dictionary, the method comprising:

(a) detecting a spell definition tag within a document retrieved from the Internet that identifies an acceptable variant of a linguistic term; and

(b) in response to detecting the spell definition tag, automatically adding the acceptable variant of the linguistic term to an electronic dictionary.

43. (Original) The method of claim 42, wherein detecting the spell definition tag is performed during user browsing of the Internet.

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IX. EVIDENCE APPENDIX

09/751,574

None.

- A-7-

X. RELATED PROCEEDINGS APPENDIX

09/751,574

None.